

## Why use Poolshield?

Duroplastics has introduced a new and innovative system of relining a old marbelite/concrete or fibreglass pool or simply lining a new concrete shell.

Duroplastic has recently introduced a guaranteed system for swimming pools that will give the pool owner confidence that his pool is resistant against osmosis, blistering and flaking. This comes from extensive tests in both the field and laboratory Based on a unique Vinyl Ester resin hybrid , Poolshield has the features that will outperform other systems on the market

Features of Poolshield are :-

- Can be applied onto gunite, concrete & old fibreglass surfaces
- Easy to use in pool lining , three simple steps .
- Similar to painting of walls.
- Economical.

### BACKGROUND TO POOLSHIELD

Osmosis causes both unsightly blisters and can cause structural damage to pools and linings . This can be prevented if the correct resin system is used. For a resin to be successful in a water environment , it should demonstrate :-

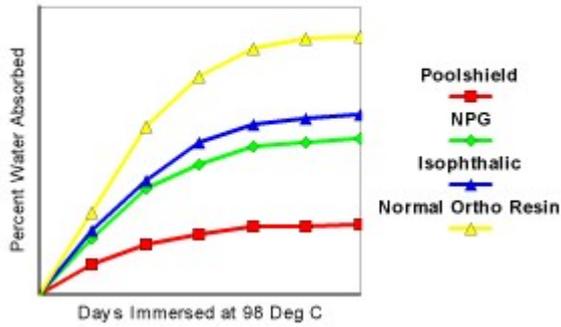
- Low water uptake
- High resistance to attack by water that causes hydrolysis and subsequently osmosis.



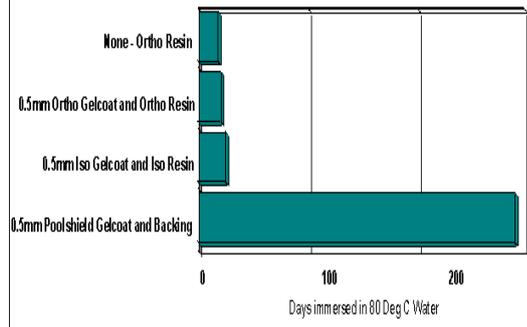
Example of how Water permeates into a fibreglass laminate

The following graph shows the low water uptake of Poolshield system and resistance to blistering caused by osmotic pressure

**Water Absorption in laminate**



**Time to Blistering of Different Laminates**

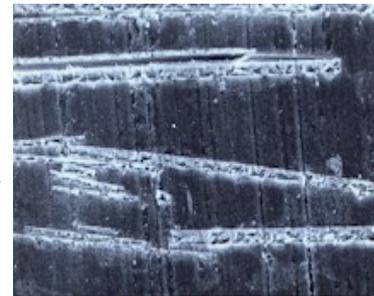


A further test , (also called the turtle box test) shows the time that it takes for a laminate to produce blistering has proven that Poolshield lasts more than 10 times that of the standard pool lining of chop strand matt , tissue and topcoat. This can equal up to 20 years in the ground. Poolshield prevents water from entering into the laminate due to its low water absorption. In the event of some migration of the water , the structure of the glass flake is that it is made of millions of glass flakes that layer down into the resin matrix .



<- Microscope picture of Glass Flakes

Cross Section of Glass Flake Lining --  
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This prevents the water from taking the shortest path to the sub base that often causes delamination The permeability of such a coating is 25 times more effective than a conventional fibreglass laminate pool lining

Poolshield lining system has been developed for pool linings , including re- lining of old fibreglass shells marbelite pools, etc. This system uses a unique three in one system that makes it very quick to complete the job with the best system available on the market. With over 10 million square metres applied world wide , glass flake lining systems have been around coating Offshore oilrigs , Power stations , water purification works and even hotels for the last 20 years.. Now available for swimming pools and specially developed by Duroplastics under the name Poolshield

**GUARANTEE**

Poolshield comes with a 2 year guarantee if applied by an authorised applicator. This is issued by Duroplastics and covers osmosis , diffusion and blistering. It does not cover earth movement.

**COLOURS**

Poolshield comes in a range of colours . A special topcoat is supplied to ensure that the darker colours are more colourfast and do not fade as easily as the standard Flowcoats/Poolcoats supplied by other companies.

See colour sheet for more details.